

INFORMATION POINT NO. 2: INDUSTRIAL FISHERIES AND THEIR IMPACT

WHAT IS INDUSTRIAL FISHING?

It is fishing carried out by vessels over 18 metres in length with technological and non-selective systems, such as trawling, longlining and purse seining. Industrial fishing grew from the application of technologies developed for war (radar, sonar, satellite positioning).



Commercial fishing covers more than 55% of the ocean's surface, an area more than four times larger than that occupied by agriculture.

Sources: Pauly et al, 2002.

Global Fishing Watch

WHAT IS OVERFISHING?

Overfishing is the overexploitation of fish stocks. A situation that occurs when more fish are caught than are born, because we do not allow enough time for natural fish stocks to regenerate.

The latest report from the FAO, the UN's Food and Agriculture Organisation, claims that **90% of fish stocks are overexploited**.

Overfishing can lead to the extinction of a species. In fact, in the 20th century, humans brought some species of whales, Atlantic cod and herring to the brink of extinction.

Source: FAO.

WHAT IS BYCATCH?



Bycatch is the accidental capture of unwanted species during the fishing process. Usually these bycatches are discarded by throwing them back into the sea, most of them lifeless; these bycatch species that are eventually discarded are called "discards": non-target species that are thrown away/discarded.

An estimated 100 million sharks, 300,000 seabirds and 250,000 sea turtles are killed each year due to bycatch.

Source: Greenpeace

HOW MUCH FISH IS CAUGHT TO BE THROWN AWAY?

According to an FAO study, the global amount of annual fishery discards is around **9.1 million tonnes (10.1% of annual catches)**, of which:

- 4.2 million tonnes are in bottom-set nets,
- 1.0 million tonnes to purse seine trawlers,
- 900,000 tonnes to pelagic trawls and

- 800,000 tonnes to gillnets.

Sources: FAO (Pérez Roda et al., 2019).

Zeller D, Pauly D (2019). Viewpoint: Back to the future for fisheries, where will we choose to go? Global Sustainability 2, ell, 1-8.

HOW MUCH ARE OTHER SPECIES AFFECTED WHILE FISHING?

The FAO estimates an annual fisheries interaction with at least 20 million endangered, threatened or protected species. Some international authors and researchers consider FAO's estimates to be far below the reality.

IS INDUSTRIAL FISHING PROFITABLE?

Long distance fleets receive subsidies amounting to 20-40% of the value of their catches. Without these and other subsidies many of these fleets would not be profitable.

Source: FAO

IS IT FAIR TO SUBSIDISE INDUSTRIAL FISHING?

Some subsidies such as **tax breaks and fuel subsidies are harmful**. China, Japan and the European Union provide the most harmful fisheries subsidies. Reducing these subsidies is one of FAO's objectives for the coming years.

ARE WE SHIFTING OVERFISHING TO LESS DEVELOPED COUNTRIES?

Industrial long-distance fishing targets the territorial waters of less developed countries with limited control capacity. Industrial long-distance fishing **transfers the risks of overfishing to less developed countries**, leading to famine and migratory movements.

IS INDUSTRIAL FISHING SOCIALLY SUSTAINABLE?

Industrial fishing destroys the jobs of coastal populations and has been linked to precariousness, slave-like conditions and lack of job security. The complexity of surveillance on the high seas and the international character of companies and employees make it difficult to control this situation.

The production of fishmeal in less developed countries, mainly for animal feed in developed countries, affects food security in fishing areas and leads to famine and migratory movements.

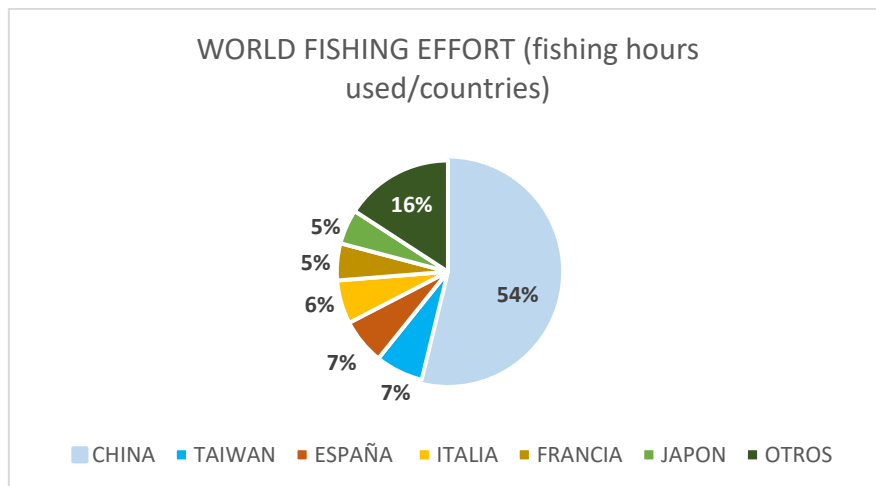
In industrial fisheries, high specialisation and scale production has led to an increasing concentration of production and resources. Fewer and fewer companies are concentrating more and more of the world's fishing capacity. Most of the world's fishery resources are exploited by only a few companies.

Sources: FAO

Tickler, D., Meeuwig, J., Bryant, K., David, F., Forrest J.A.H., Gordon, E., Joudo Larsen, J., Oh, B., Pauly, D., Sumaila, R.U., Zeller, D. (2018) Modern slavery and the race to fish. Nature Communications <https://www.nature.com/articles/s41467-018-07118-9>.

WHO DOES INDUSTRIAL FISHING?

While most nations appear to fish preferentially within their exclusive economic zones (EEZs), China, Spain, Taiwan, Italy, France, Japan and South Korea **account for 85% of the fishing activity observed on the high seas.**



Source: Global Fishing Watch. Article in Science magazine

WHO CONTROLS INDUSTRIAL FISHING?

International waters are those waters beyond 200 miles from the coast, which usually limit a country's exclusive economic zone. They make up 60% of the oceans and are free for fishing and navigation as long as their resources are conserved.

Measures have been adopted at the international level to prevent illegal, unreported and unregulated fishing in these international waters, such as the commitment of countries to monitor vessels flying their flag and to control the exploitation of their resources on the coast or what enters ports and is traded.

Many countries, due to a lack of will or means, have not completed their implementation.

Illegal fishing in international waters is estimated to be worth up to **26 million tonnes of fish and \$23 billion a year.**

Sources: FAO

UN Convention (Rights of the Sea)

IS INDUSTRIAL FISHING EFFECTIVE?



Industrial fishing contributes a significant amount of food to the food chain, but at the same time:

- It depletes marine fishery and non-fishery resources: of the 600 fishing grounds monitored by FAO, more than half are depleted to the point of generating little or no catch.
- It uses large amounts of energy and fossil fuels for the transport and refrigeration of its products.
- It causes a significant carbon footprint by having to go further and further due to the depletion of nearby resources.
- It consumes most of the world's fisheries subsidies.
- It compromises the food security of many regions and future generations worldwide.

Sources: Edgar et al, 2018; O'Leary et al, 2018; Robert et al, 2017; Zeller, 2005; Schiller, Bailey, Jacquet, & Sala, 2018 ; Sumalia et al, 2015 ; White & Costello, 2014.

<https://www.nationalgeographic.es/medio-ambiente/2018/06/la-pesca-de-altura-no-es-solo-destructiva-tampoco-es-rentable>

“FISH LESS TO CATCH MORE”

Many studies and experiences from marine reserves show that a reduction in overfishing leads to an increase in catches in less time and effort.